

AMENDMENTS TO THE CLAIMS

1. (Withdrawn) A polyolefin article characterized as being composed of polyolefin and as including an oriented polyolefin material so that its average coefficient of linear expansion is maintained at a value of not exceeding 5×10^{-5} (/C) in the 20 – 80 °C range.

2. (Withdrawn) The polyolefin article as recited in claim 1, characterized in that said oriented polyolefin material is formed of high-density polyethylene.

3. (Withdrawn) The polyolefin article as recited in claim 2, characterized in that said high-density polyethylene has a weight-average molecular weight within the range of 100,000 – 500,000.

4. (Withdrawn) The polyolefin article as recited in any one of claims 1-3, characterized in that said oriented polyolefin material is provided in a sheet form.

5. (Previously presented) A method for manufacture of a polyolefin article comprising:

selecting an oriented polyolefin material having a value of not exceeding 5×10^{-5} (/°C) for average coefficient of linear expansion in the 20 – 80 °C range;

depositing a peroxide, combined with a monomer capable of dissolving polyolefin, on a surface of the oriented polyolefin material; and

bonding said oriented polyolefin material to a second polyolefin material by the application of pressure and heat, thereby manufacturing a polyolefin article.

6. (Cancelled)

7. (Previously presented) The method of claim 5, wherein said oriented polyolefin material comprises an oriented polyolefin sheet and the second polyolefin material comprises a second polyolefin sheet.

8. (Previously presented) The method of claim 7, wherein said oriented polyolefin material is an oriented polyolefin sheet having a minus value for average coefficient of linear expansion in the 20 – 80 °C range, and said oriented polyolefin sheet is superposed on a second polyolefin sheet having a plus value for average coefficient of linear expansion in the 20 – 80 °C range.

9. (Withdrawn) A method for manufacture of a polyolefin article characterized as including the steps of:

covering an oriented polyolefin material having a value of not exceeding 5×10^{-5} (/°C) for average coefficient of linear expansion in the 20 – 80 °C range with a layer of polyolefin having a melting point lower than that of said oriented polyolefin material;

subsequent to the covering with the polyolefin layer, effecting joining of the oriented polyolefin material by the application of pressure and heat at a temperature below the melting point of the oriented polyolefin material but sufficient to soften or melt said covering polyolefin.

10. (Withdrawn) The method for manufacture of a polyolefin article as recited in claim 9, characterized in that said oriented polyolefin material comprises a plurality of oriented polyolefin sheets having minus values for average coefficient of linear expansion in the 20 – 80 °C range, and that an oriented or unoriented polyolefin sheet having a plus value for average coefficient of linear expansion in the 20 – 80 °C range is interposed between adjacent ones of said oriented polyolefin sheets covered with said polyolefin layer for subsequent joining by the

application of pressure and heat.

11. (Previously presented) The method of claim 5, wherein said oriented polyolefin material is prepared by subjecting the oriented polyolefin material having a value of not exceeding 5×10^{-5} ($^{\circ}\text{C}$) for average coefficient of linear expansion in the 20 – 80 $^{\circ}\text{C}$ range to a heat treatment to pre-melt the surface.

12. (Previously presented) The method of claim 5, further comprising:

selecting an oriented polyolefin material having a value of not exceeding 5×10^{-5} ($^{\circ}\text{C}$) for average coefficient of linear expansion in the 20 – 80 $^{\circ}\text{C}$ range;

subjecting the material to the heat treatment so that a surface thereof melts; and

applying pressure and heat at a temperature below a melting point of the heat-treated oriented polyolefin material but sufficient to melt said surface thereby joining the oriented polyolefin material to the second polyolefin material.

13. (New) A method for manufacture of a polyolefin article consisting of:

selecting an oriented polyolefin material having a value of not exceeding 5×10^{-5} ($^{\circ}\text{C}$) for average coefficient of linear expansion in the 20 – 80 $^{\circ}\text{C}$ range;

depositing a peroxide, combined with a monomer capable of dissolving polyolefin, on a surface of the oriented polyolefin material; and

bonding said oriented polyolefin material to a second polyolefin material by the application of pressure and heat, thereby manufacturing a polyolefin article.